Index of Authors

	PAGES
Abraham, E. P.	111–116
Adams, P. A.	95–102, 653–655
Alex, S.	299–304
Allan, D.	669–672
Arthur, G.	523–532
Atassi, M. Z.	261–264, 673–680, 681–697
Au, Y. N.	657–659
Awasthi, Y. C.	1–10, 11–20
Baddiley, J.	305–318
Balaram, P.	395–400
Baldwin, G. S.	111–116
Bamforth, C. W.	863–866
Barrett, A. J.	487–497
Barrett, C. H.	467–473
Beale, D.	183–191
Bell, J. E.	299–304
Bennett, H. P. J.	253–256
Berman, M. C.	95–102
Bert, J. L.	761–768
Biserte, G.	543–546
Bock, P. E.	769–776
Bordas, J.	499–508
Boulter, D.	509–516
Boutteau, F.	543–546
Boveris, A.	421–427
Bray, R. C.	265–267, 285–288, 499–508
Brennan, S. O.	281–283
Brocklehurst, K.	707–718
Brockway, B. E.	873–876
Brodniewicz-Proba, T.	139–145
Brown, E.	661–664
Brown, J. R.	855–858
Bryant, V.	233–237
Buchowicz, J.	139–145
Bullard, B.	333–339
Burchell, B.	155–163
Buswell, J. A.	457–465
Camakaris, J.	665–668
Carraway, C. A. C.	45–51
Carraway, K. L.	45–51
Carrell, R. W.	281–283
Chandrika, S. R.	29–36
Choo, K. H.	665–668, 777–783
Christie, W. W.	637–643
Clarke, A. E.	437–447
Clarke, N. G.	555–560, 561–569
Clarke, P. H.	811–826
Clonis, Y. D.	247–251
Coggins, J. R.	799–809
Cole, A. L.	83–94
Colegate, S. M.	649–651
Conrad, H. E.	355–363
Cornish-Bowden, A.	349–354
Corrado, F. J., IV	45–51
Cotton, R. G. H.	665–668, 777–783
Crossley, L. G.	173–182
Croy, R. R. D.	509–516
Cummins, P.	571–580
Damgaard, S. E.	613–618
Danielsen, E. M.	645–648
Danks, D. M.	665–668
Dao, D. D.	1–10
Davies, D. D.	341–348
Dawson, R. M. C.	555–560, 561–569
Dean, P. D. G.	53–62
Delacourte, A.	543–546
De Martinez, S. S. G.	785–790
Dickinson, F. M.	619–626
Dingle, J. T.	835–843
Dobrovolskii, A. B.	851–854
Dodgson, K. S.	467–473
Dorling, P. R.	649–651
Drabble, W. T.	533–541
Earley, F. G. P.	429–436
Edwards, G. F. StL.	111–116
Eglinton, D. G.	319–331
Ellison, M. L.	239–246
Engel, P. C.	365–371
Estivariz, F. E.	125–132
Farooqui, A. A.	827–834
Fazakerley, J. K.	183–191
Filliatreau, G.	543–546
Fogle, D. D.	45–51
Forster, S. J.	873–876
Fowler, K.	777–783
Fox, K. R.	729–742
Fransson, L.-Å.	103–110
Freedman, R. B.	373–388, 389–393, 873–876
Friedrich, H.	165–171
Gaal, A.	37–43
Galbraith, D. A.	63–70
Garner, C. D.	499–508
Gatehouse, J. A.	509–516
Gatt, S.	669–672
Gauvreau, D.	729–742
Gersten, D. M.	869–872
Ghanbari, H. A.	627–635
Gilbert, H. J.	533–541
Glanville, R. W.	517–522
Gleeson, P. A.	437–447
Glorieux, F. H.	253–256
Goebels, Y.	699–706
Gooding, P. E.	319–331
Goodwin, D. C.	729–742
Goodwin, G. H.	661–664
Gore, C. H.	799–809
Gould, K. G.	365–371
Green, C.	785–790
Greenwood, C.	319–331
Griffiths, W. T.	277–280
Grinsted, J.	581–592
Grossmann, K.	165–171
Gusev, N. B.	851–854
Gutteridge, S.	285–288, 499–508
Halford, S. E.	581–592, 593–604
Ham, J.	239–246
Hardman, N.	859–862
Harwood, J. L.	791–797
Hasnain, S. S.	499–508
Hastings, J. R. B.	661–664
Hazlewood, G. P.	555–560, 561–569
Hembry, R. M.	835–843
Hillson, D. A.	373–388, 389–393
Hobkirk, R.	221–227
Holbrook, J. J.	769–776
Hollaway, M. R.	811–826
Hope, J.	125–132
Hornebeck, W.	835–843
Hughes, J.	209–219
Hunter, J. B.	799–809
Hunter, M. L.	637–643
Hutchinson, D. W.	657–659
Huxtable, C. R.	649–651
Jennings, I. G.	777–783
Johns, E. W.	661–664
Johnson, M. K.	319–331, 411–420
Johnson, N. P.	581–592, 593–604
Johnson, T. C.	21–28
Jones, R.	289–297
Jordan, B. R.	791–797
Kazim, A. L.	261–264, 673–680
Kennedy, S. M. E.	155–163
Kenny, A. J.	645–648
Khan, M. I.	395–400
Khirabadi, B. S.	869–872

	PAGES
Kiener, P. A.	111–116
Kilpatrick, D. C.	273–275
Kimata, K.	193–207
Kinsella, J. E.	269–272
Knight, C. G.	835–843
Kukulska-Langlands, B. M.	799–809
Kurian, P.	869–872
Kurihara, T.	71–82
Lamy, M. T.	285–288
Lang, G.	449–455
Lapière, C. M.	699–706
Ledley, R. S.	869–872
Lehmann, H.	681–697
Leloir, L. F.	257–260
Lifely, M. R.	305–318
Littler, W. A.	571–580
Lowe, C. R.	247–251
Lowry, P. J.	125–132
Lumsden, J.	239–246
Luscombe, M.	769–776
MacDougall, A. J.	855–858
Mahany, T.	869–872
Mains, I.	457–465
Malthouse, J. P. G.	265–267, 707–718
Marshall, S. E.	769–776
Mathew, M. K.	395–400
Mathieson, J. M.	761–768
Matthews, I. T. W.	835–843
Mayes, E. L. V.	661–664
McCarl, R. L.	627–635
McCarthy, A. D.	605–611
McLean, C.	125–132
Mellows, G.	209–219
Mennella, M. R. F.	289–297
Milenkovic, A. G.	21–28
Minkel, D. T.	475–485
Moir, A. J. G.	547–554
Moran, D. M.	233–237
Morpeth, F. F.	619–626
Myer, J.	665–668
Nakazawa, K.	193–207
Neujahr, H. Y.	37–43
Nishizawa, Y.	71–82
Nusgens, B. V.	699–706
O'Donnell, M. J.	449–455
Oike, Y.	193–207
Oliver, R. P.	277–280
Padmanaban, G.	29–36
Pasanen, M.	719–727
Pearce, R. H.	761–768
Pennings, E. J. M.	133–138
Pepper, D. S.	769–776
Perham, R. N.	147–154
Perry, S. V.	547–554
Petering, D. H.	475–485
Peters, T., Jr.	281–283, 867–868
Petriella, C.	257–260
Pietras, R. J.	743–760
Plumbridge, T. W.	855–858
Poerio, E.	341–348
Porter, R. R.	173–182
Poulsen, K.	475–485
Power, D. M.	457–465
Price, K. M.	571–580
Putnam, F. W.	867–868
Qadri, F.	53–62
Ragan, C. I.	429–436
Ramey, E. R.	869–872
Ramwell, P. W.	869–872
Reed, R. G.	281–283, 867–868
Risnik, V. V.	851–854
Risteli, J.	517–522
Roy, P. D.	233–237
Sainsbury, G. M.	333–339
Salminen, K.	719–727
Salonen, E.	719–727
Saneto, R. P.	1–10, 11–20
Schrevel, J.	543–546
Schuppan, D.	517–522
Schwartz, W. N.	487–497
Seitz, U.	165–171
Severin, S. E.	851–854
Shaw, C. F., III	475–485
Sheltawy, A.	523–532
Shepherd, M. G.	83–94
Shetty, J. K.	269–272
Shinkai, H.	699–706
Shinomura, T.	193–207
Sjöberg, I.	103–110
Smith, B. E.	449–455
Solomon, S.	253–256
Spartalian, K.	449–455
Srivastava, P. N.	827–834
Srivastava, S. K.	11–20
Staneloni, R. J.	257–260
Stanley, C. J.	147–154
Stanworth, D. R.	233–237
Stenman, U.-H.	719–727
Stevenson, R.	233–237
Surarit, R.	401–410
Surolia, A.	395–400
Sutcliffe, R. G.	799–809
Suzuki, S.	193–207
Svasti, J.	401–410
Szego, C. M.	743–760
Takahashi, Y.	71–82
Tarelli, E.	305–318
Thomas, E. W.	457–465
Thomas, P.	669–672
Thomson, A. J.	319–331, 411–420
Ticho, T.	811–826
Timpl, R.	517–522
Tipton, K. F.	605–611
Tolmasky, M. E.	257–260
Tong, C. C.	83–94
Tsoutsoulis, C. J.	221–227
Tully, M. J.	111–116
Turrens, J. F.	421–427
Twining, S. S.	681–697
Tyler, M.	509–516
Ugalde, R. A.	257–260
Van der Rest, M.	253–256
Van Kempen, G. M. J.	133–138
Vuento, M.	719–727
Vyas, J. P.	645–648
Waley, S. G.	111–116
Walker, D. A.	845–849
Walker, J. M.	605–611
Waring, M. J.	729–742
Warner, S. J.	761–768
Watts, D. C.	63–70
Weatherill, P. J.	155–163
Wharton, S. A.	785–790
White, G. F.	467–473
Whittaker, P. A.	859–862
Wielgus, S.	475–485
Wiman, B.	229–232
Wolf, H. U.	117–124
Woodrow, I. E.	845–849
Zecher, R.	117–124

Index of Subjects

Acetamide
  chloroacetone inhibition of aliphatic amidase 811–826
N-Acetylgalactosamine
  Bacillus licheniformis teichuronic acid 305–318
β-N-Acetylhexosaminidase
  isolation from seminal plasma 827–834
  role in fertilization 827–834
Acrosomal hydrolases
  role in fertilization 827–834
Acylamide amidohydrolase, *see* Aliphatic amidase
Acyl-α-chymotrypsins
  thermodynamics of deacylation 653–655
Adenosine triphosphatase
  Ca^{2+}- or Mg^{2+}-stimulated 45–51
  cell surface 45–51
Adenosine triphosphatases
  myosin 627–635
Adipocytes
  stereospecific distribution of triacylglycerol palmitate 637–643
  triacylglycerol biosynthesis 637–643
Adrenal gland
  effect of γ-melanotropin 125–132
  phospholipids 523–532
Adrenal medulla
  chromaffin-granule lysophosphatidylcholine 523–532
Adrenaline
  troponin-I phosphorylation 547–554
Affinity chromatography
  DNA immobilization 855–858
  6-phosphogluconate dehydrogenase 53–62
  triazine dyes–Sepharose 53–62
Agglutinin
  castor bean 395–400
  fluorescence-polarization studies of binding to 4-methylumbelliferyl β-D-galactoside 395–400
Aging
  myosin in cultured heart cells 627–635
Albumin
  serum, *see* Serum albumin
  sex-related differences in blood proteins 869–872
Aldehyde reductase
  interaction with NADP 619–626
  physical properties and active sites 619–626
  purification from pig kidney 619–626
Alfalfa (*Medicago sativa*)
  glycolipid in roots 257–260
Aliphatic amidase
  active-site-directed inhibition by chloroacetone 811–826
  Pseudomonas aeruginosa 811–826
Alkaloid
  indolizidine, *see* Indolizidine alkaloid
Alkan-2-yl sulphate esters
  alkylsulphohydrolase CS2 467–473
  stereospecific synthesis 467–473
Alkyl 2-pyridyl disulphides
  proteinase active-centre thiol groups 707–718
Alkylsulphohydrolase CS2
  alkan-2-yl sulphate esters 467–473
  Comamonas terrigena 467–473
  detergent and surfactant biodegradation 467–473
  hydrophobic interactions 467–473
Allosteric enzymes
  glutamate dehydrogenase kinetics 299–304
Amidase
  aliphatic, *see* Aliphatic amidase
Amino acid compositions
  protein evolution and phylogenetic 'trees' 349–354
Amino acid residues
  influence on myoglobin antigenic sites 673–680, 681–697
Amino acid sequence
  residues 400–403 of bovine serum albumin 867–868
Amino acid sequences
  protein evolution and phylogenetic 'trees' 349–354
4-(*N*-Aminoethyl 2′-pyridyl disulphide)-7-nitrobenzo-2-oxa-1,3-diazole
  papain and ficin active centres 707–718
δ-Aminolaevulinate dehydratase
  purification and properties, from *Neurospora* 29–36
  regulation of biosynthesis in *Neurospora* 29–36
Antibiotics
  quinoxaline, *see* Quinoxaline antibiotics
Antibodies
  anti-dinitrophenyl, *see* Anti-dinitrophenyl antibody
  monoclonal, *see* Monoclonal antibodies
  myoglobins of various species 681–697
Anti-dinitrophenyl antibody
  binding to cathepsin D and dinitrophenyl-pepstatin 835–843
Antigen
  human pregnancy-associated plasma protein A 799–809
Antigenic sites
  haemoglobin α-chain 261–264
  myoglobin 673–680, 681–697
  neighbouring amino acid residues 673–680, 681–697

Antigenic sites—*contd.*
proteins 673–680, 681–697
synthetic peptides and protein structure 261–264
α_2-Antiplasmin
affinity-chromatographic purification 229–232
interaction with plasmin(ogen) 229–232
Antisera
type-IV collagens 517–522
Antiserum
arabinogalactan-protein of *Glasiolus* style mucilage 437–447
Wistar-rat liver UDP-glucuronyltransferase 155–163
Arabinogalactan-protein
antiserum and antigenic determinants 437–447
Gladiolus style 437–447
L-Arabinose
antigenic determinant of *Gladiolus* style arabinogalactan-protein 437–447
Aromatic compounds
degradation in yeast (*Trichosporon*) 37–43
Arsenite
fatty acid synthesis and phosphatidylcholine 791–797
Arylsulphatase
3,4-dihydroxybenzoic acid *O*-sulphate esters 133–138
rat liver high-speed supernatant 133–138
Asparagine residues
bovine serum albumin 867–868
Avena sativa, *see* Oat

Bacillus cereus 569/H/9/1
isolation and production of β-lactamases 111–116
β-lactamase II with selectively decreased cephalosporinase activity 111–116
Bacillus licheniformis A.T.C.C. 9945
cell-wall teichuronic acid 305–318
Bacillus stearothermophilus
NADH–(dichlorophenol-indophenol) oxidoreductase 457–465
6-phosphogluconate dehydrogenase 53–62
Bacteriophage λ
DNA with *Eco*RI restriction endonuclease 581–592, 593–604
Basement membranes
type-IV collagen chains 517–522
Bilirubin
binding to normal and variant human serum albumin 281–283
liver UDP-glucuronyltransferase 155–163
photoinduced isomerization in cationic detergent 657–659
Bilirubin monoglucuronide
photoinduced disproportionation 657–659
Bilirubins
IIIα, IXα and XIIIα 657–659
4-Bis-(2-chloroethyl)amino-L-phenylalanine
DNA immobilization 855–858
Blood proteins
sex-related differences in rats and humans 869–872
Brain
2′:3′-cyclic nucleotide 3′-phosphodiesterase 71–82
glutamate dehydrogenase 605–611
tubulin and 10-nm neurofilaments 543–546
Bronchial carcinoma
calcitonin 239–246
Butyrivibrio sp.
phospholipids and other complex lipids 555–560, 561–569
Butyroyl esters
Butyrivibrio phospholipids 555–560, 561–569

Cadmium
metallothioneins 475–485
Calcitonin
bronchial carcinoma cells 239–246
high-molecular-weight immunoreactive forms 239–246
high-pressure liquid chromatography 239–246
Carcinoma
bronchial, *see* Bronchial carcinoma
Cardiac muscle
troponin-I phosphorylation 547–554
Cartilage
proteoglycan structure 193–207
Castor bean (*Ricinus communis*)
agglutinin binding to 4-methylumbelliferyl β-D-galactoside 395–400
Catalase
ethanol peroxidation 613–618
Catecholamines
exchange diffusion in liposomes 523–532
Catechols
O-sulphation 133–138
Cathepsin B
human liver 487–497
Cathepsin D
binding and inhibition by pepstatin derivatives 835–843
human liver 487–497
Cathepsin H
binding to α_2-macroglobulin 487–497
purification from human liver 487–497
simultaneous isolation of cathepsins B and D 487–497
Cationic detergents
photoinduced bilirubin isomerization 657–659
Cell walls
Bacillus licheniformis teichuronic acid 305–318

Cells
heart, *see* Heart cells
mammary-adenocarcinoma 13762 ascites, *see* Mammary-adenocarcinoma 13762 ascites cells
neuroblastoma N18, *see* Neuroblastoma N18 cells
spleen, *see* Spleen cells
Cellulase
commercial preparations contain exo-β-1,3-glucanase 863–866
Cellulases
purification from fungus *Thermoascus aurantiacus* 83–94
Cephalosporinase
Bacillus cereus 569/H/9 β-lactamase II 111–116
Cerulenin
fatty acid synthesis and phosphatidylcholine 791–797
Cetyltrimethylammonium bromide
photoinduced bilirubin isomerization 657–659
Chick embryo
cartilage proteoglycan structure 193–207
protein disulphide-isomerase and procollagen biosynthesis 873–876
Chloroacetone
active-site-directed inhibitor 811–826
inhibition of *Ps. aeruginosa* aliphatic amidase 811–826
Chloromethyl ketones
enzyme inhibition 811–826
Chlorophyll biosynthesis
NADPH–protochlorophyllide oxidoreductase 277–280
Chloroplasts
light-activation of sedoheptulose bisphosphatase 845–849
6-Chloropurine ribotide
inhibition of IMP dehydrogenase 533–541
Cholecalciferol
human plasma vitamin D binding protein 401–410
Cholesta-4,6-dien-3-one
interaction with phosphatidylcholine in liposomes 785–790
Cholesterol
interaction with phospholipids in liposomes and membranes 785–790
Chondroitin sulphate
cartilage proteoglycan 193–207
Chondroitinase
cartilage proteoglycan structure 193–207
Chromaffin granules
lysophosphatidylcholine 523–532
phospholipid hydrolysis *post mortem* 523–532
Chromatin
parsley DNA-dependent RNA polymerase I 165–171
trout testis nuclear high-mobility-group proteins 661–664
Chromatography
affinity, *see* Affinity chromatography
covalent, *see* Covalent chromatography
high-performance liquid, *see* High-performance liquid chromatography
Chromophores
DNA binding of quinoxaline antibiotics 727–742
α-Chymotrypsin
acyl-, *see* Acyl-α-chymotrypsin
Cibacron Blue
affinity chromatography of NADH dehydrogenase 457–465
dye–Sepharose affinity chromatography 53–62
Circular dichroism
cytochrome *c* oxidase 319–331
magnetization curves of haemoproteins 411–420
Citraconic anhydride
separation of proteins from nucleoprotein complexes 269–272
Collagen
basement membrane 517–522
different type-IV chains 517–522
peptidases and biosynthesis 699–706
precursor, *see* Procollagen
radioimmunoassay 517–522
reverse-phase high-performance liquid chromatography of CNBr peptides 253–256
Collagen fibres
skin meshworks 761–768
volume exclusion of dextrans 761–768
Comamonas terrigena
stereospecific CS2 secondary alkylsulphohydrolase 467–473
Complement
fixation by pepsin-treated immunoglobulin M 183–191
Complement cofactor β1H
role in hydrolysis by C3b inactivator 173–182
Complement components C3 and C3b
hydrolysis by C3b inactivator 173–182
Complement control protein C3b inactivator (C3bINA)
cofactors β1H and C4b-binding protein 173–182
hydrolysis of complement components C3b and C4b 173–182
purification from human plasma 173–182
Complement-component-C4b-binding protein
role in hydrolysis by C3b inactivator 173–182
Complex I
bovine heart mitochondrial NADH dehydrogenase 429–436
Compound 48/80
histamine release from mast cells 233–237

Concanavalin A
  Ca^{2+}- or Mg^{2+}-stimulated ATPase 45–51
Convicilin
  distinction from legumin and vicilin 509–516
  purification from pea seeds 509–516
Copper
  metallothioneins 475–485
Copper protein
  near-i.r. magnetic and natural c.d. of cytochrome oxidase 319–331
Corticotropin
  γ-melanotropin and precursor 125–132
Covalent chromatography
  resolution of thiol–protein disulphide oxidoreductases 373–388, 389–393
Cyclic AMP-dependent protein kinase
  troponin-I phosphorylation 547–554
2′:3′-Cyclic nucleotide 3′-phosphodiesterase
  affinity chromatography on 8-(6-aminohexyl)-amino-2′-AMP–Sepharose 71–82
  purification from brain 71–82
  solubilization by proteolytic enzymes 71–82
Cytochrome *c*
  magnetic-c.d. spectroscopy 411–420
Cytochrome *c* oxidase
  magnetic-c.d. spectroscopy 411–420
  near-i.r. magnetic and natural c.d. 319–331
Cytoplasm
  erythrocyte phosphoglycollate phosphatase 117–124
Cytoskeleton
  neuro-, *see* Neurocytoskeleton

Dansyl (5-dimethylaminonaphthalene-1-sulphonyl) groups
  fluorescence polarization 769–776
Deoxyribonuclease
  *see Eco*RI restriction endonuclease
Deoxyribonucleic acid
  alkylation with 4-bis-(2-chloroethyl)amino-L-phenylalanine 855–858
  bacteriophage λ 581–592, 593–604
  binding of quinoline analogues of echinomycin 729–742
  *Eco*RI restriction endonuclease 581–592, 593–604
  extending enzyme from wheat germ 139–145
  immobilization for affinity chromatography 855–858
  immobilization for drug-binding studies 855–858
  interaction with protein 581–592, 593–604
  methylation in *Physarum* nucleus 859–862
  restriction endonucleases *Hpa*II and *Hha*I 859–862
  structural studies with restriction enzymes 581–592
Deoxyribonucleic acid nucleotidylexotransferase, *see* Terminal deoxyribonucleotidyltransferase
Dermatan sulphate
  acid lability of glycosidic bonds 355–363
Detergents
  biodegradation by alkylsulphohydrolases 467–473
  cationic, *see* Cationic detergents
Development
  foetal and adult cardiac myosins 571–580
  myosin in neonatal and adult rat heart 627–635
Dextrans
  exclusion volumes from collagen meshworks 761–768
Diabolic acid
  esters in *Butyrivibrio* phospholipids 555–560, 561–569
1,2-Diacylglycerol kinase
  endogenously generated substrate 669–672
  human erythrocyte membrane 669–672
3,4-Dihydroxybenzoic acid
  O-sulphation by rat liver sulphotransferase 133–138
3,4-Dihydroxybenzoic acid *O*-sulphate esters
  arylsulphatase activities 133–138
  chemical synthesis and characterization 133–138
Dinitrophenyl-pepstatins
  binding and inhibition of cathepsin D 835–843
  preparation 835–843
  simultaneous binding of cathepsin and anti-dinitrophenyl antibody 835–843
2,2′-Dipyridyl disulphide
  papain and ficin active centres 707–718
Dolichyl diphosphate oligosaccharide
  glucose-containing, in alfalfa 257–260
Duchenne muscular dystrophy
  red-cell cytoplasmic enzymes 63–70

Echinomycin
  DNA binding of quinoline analogues 729–742
*Eco*RI restriction endonuclease
  binding to bacteriophage-λ DNA 593–604
  kinetics with bacteriophage-λ DNA 581–592
  recognition sites on DNA 581–592, 593–604
Ecto-enzymes
  Ca^{2+}- or Mg^{2+}-stimulated ATPase 45–51
Elastase
  solubilization of brain cyclic nucleotide phosphodiesterase 71–82
Electronic spectra
  cytochrome *c* oxidase 319–331
  haemoproteins 411–420
Embryo
  chick, *see* Chick embryo
Endo-β-D-galactosidase, *see* Keratanase

Endonuclease
restriction, *see* Restriction endonuclease
Endopeptidase
intestinal microvillar membrane 645–648
neutral 645–648
procollagen type III *N*-terminal 699–706
Entropy/enthalpy compensation
deacylation of acyl-α-chymotrypsins 653–655
Enzymes
entropy/enthalpy compensation 653–655
isotope effect on kinetics 613–618
restriction, *see* Restriction endonucleases
triazine-dye inhibition of nucleotide binding 247–251
Erythrocytes
membrane 1,2-diacylglycerol kinase 669–672
phosphoglycollate phosphatase 117–124
see also Red blood cells
Escherichia coli B
pseudominate inhibition of isoleucyl-tRNA synthetase 209–219
Escherichia coli K12
native and mutant IMP dehydrogenase 533–541
Ethanol
peroxidation by catalase 613–618
synthesis of specific ^{2}H- and ^{3}H-labelled compounds 613–618
E.x.a.f.s., *see* X-ray absorption spectroscopy
Exo-β-1,3-glucanase
Trichoderma reesei 863–866
Eye
lens glutathione *S*-transferases 11–20

Fat-cells, *see* Adipocytes
Fatty acid synthetase
particulate fraction from germinating pea 791–797
phosphatidylcholine and cerulenin 791–797
Fatty acids
adipocyte triacylglycerol biosynthesis 637–643
binding to (normal and variant) human serum albumin 281–283
elongation in germinating pea 791–797
Fertilization
role of β-*N*-acetylhexosaminidase 827–834
Fibrinolysis
α_2-antiplasmin purification 229–232
Fibroblasts
heparan sulphate 103–110
procollagen type III *N*-terminal endopeptidase 699–706
Fibronectin
gelatin (collagen) binding 719–727
human plasma 719–727
immunochemical characterization 719–727
lectin (haemagglutinating) activity 719–727
Ficin
active-centre thiol groups 707–718
Ficoll/Triosil gradients
fractionation of red cells into age classes 63–70
Flavoprotein
Bacillus stearothermophilus NADH dehydrogenase 457–465
Flight muscle
waterbug *Z*-disc proteins 333–339
Foetus
cardiac myosin light chain 571–580
Fucose
glycosylation inhibition and membrane glycoprotein turnover 21–28
Fungus
thermophilic, *see* Thermophilic fungus
Trichoderma reesei exo-β-1,3-glucanase 863–866

Galactolipids
Butyrivibrio 555–560, 561–569
D-Galactose
antigenic determinant of *Gladiolus* style arabinogalactan-protein 437–447
Gladiolus
antiserum to style-mucilage arabinogalactan–protein 437–447
α-Globulin
vitamin D binding protein 401–410
β-Glucan
induction of *Trichoderma* exo-β-1,3-glucanase 863–866
Glucosamine
glycosylation inhibition and membrane glycoprotein degradation 21–28
Glucosamines
fibroblast heparan sulphate 103–110
Glucose 6-phosphate dehydrogenase
red blood cells 63–70
β-Glucosidase
purification from fungus *Thermoascus aurantiacus* 83–94
Glucuronic acid
Bacillus licheniformis teichuronic acid 305–318
fibroblast heparan sulphate 103–110
Glutamate dehydrogenase
negative co-operativity 299–304
proteolytic cleavage in commercial preparations 605–611
purification from bovine brain and liver 605–611
purification using GTP–Sepharose 605–611
structure and allosteric properties 605–611
thionicotinamide analogues of NAD(P)$^{+}$ 299–304

Glutamine
bovine serum albumin 867–868
Glutathione peroxidase
activity in GSH *S*-transferases 1–10, 11–20
Glutathione reductase
red blood cells 63–70
Glutathione *S*-transferases
anionic and cationic forms 1–10, 11–20
bovine lens 11–20
glutathione peroxidase activity 1–10, 11–20
human liver 1–10
Glutathione–insulin transhydrogenase
resolution by covalent chromatography from protein disulphide-isomerase 373–388, 389–393
Glycolipid
dolichyl diphosphate oligosaccharide in alfalfa 257–260
Glycoprotein
potato fruit lectin 273–275
Glycoproteins
glycosylation and degradation in membranes 21–28
Glycosaminoglycans, *see* Proteoglycans
Glycosidic bonds
acid lability in glycosaminoglycans 355–363
Glycosylation
inhibition and membrane glycoprotein degradation 21–28
Glyoxylate
oxidation and reduction by potato lactate dehydrogenase 341–348
Group-specific component, *see* Vitamin D binding protein

Haemagglutination
fibronectin 719–727
Haemin
interaction with human serum albumin 95–102
Haemoglobin
antigenic structure of α-chain 261–264
Haemoprotein
near-i.r. magnetic and natural c.d. of cytochrome oxidase 319–331
Haemoproteins
magnetization curves by magnetic c.d. 411–420
Heart
mitochondrial NADH dehydrogenase 429–436
myosin in aging and development 627–635
myosin light-chain subunits 571–580
2-oxo acid dehydrogenase multienzyme complexes 147–154
superoxide production by mitochondrial NADH dehydrogenase 421–427
Heart cells
myosin in culture 627–635
Heparan sulphate
acid lability of glycosidic bonds 355–363
lung fibroblasts 103–110
oligosaccharides 103–110
Heparin
acid lability of glycosidic bonds 355–363
complex-formation with platelet factor 4 769–776
High-mobility-group proteins
trout testis nuclei 661–664
High-performance liquid chromatography
collagen CNBr peptides 253–256
Histamine
release from mast cells by peptides 233–237
Histidine
proteinase active centres 707–718
16α-Hydroxylase, *see* Oestrone 3-sulphate 16α-hydroxylase

Iduronic acid
acid lability of glycosidic bonds in glycosaminoglycans 355–363
fibroblast heparan sulphate 103–110
Imidazole groups
proteinase active centres 707–718
Immunoglobulin G
anti-(UDP-glucuronyltransferase) antiserum 155–163
Immunoglobulin M
Fab fragments 183–191
pepsin treatment and biological activity 183–191
pepsin treatment and complement fixation 183–191
Indolizidine alkaloid
swainsonine and α-mannosidase inhibition 649–651
Injury
localization of active proteinases 835–843
Inosine 5′-monophosphate dehydrogenase
active-site modification 533–541
6-chloropurine ribotide 533–541
IMP-binding site 533–541
native and *guaB* mutants of *Escherichia coli* 533–541
thiol groups 533–541
Insects
flight-muscle Z-disc proteins 333–339
Intestine
microvillar-membrane neutral endopeptidase 645–648
5-Iodonaphth-1-yl azide
mitochondrial NADH dehydrogenase subunits 429–436
Iron
c.d. of cytochrome *c* oxidase 319–331
regulation of biosynthesis of *Neurospora* δ-aminolaevulinate dehydratase 29–36

Iron–molybdenum protein, *see* Molybdenum–iron protein
Isoleucyl-tRNA synthetase
pseudomonate inhibition in *E. coli* 209–219
Isotope effect
catalase peroxidation of [^{2}H]ethanol 613–618

Keratan sulphate
cartilage proteoglycan linkage region 193–207
Keratanase
cartilage proteoglycan structure 93–207
Kidney
zinc in metallothionein 475–485
Kidney cortex
aldehyde reductase 619–626
Klebsiella pneumoniae
nitrogenase Mo–Fe protein 449–455

β-Lactamase II
cephalosporinase activity 111–116
variants in *Bacillus cereus* 569/H/9 mutants 111–116
Lactate dehydrogenase
affinity-chromatographic purification from potato 341–348
essential lysine residues 365–371
inhibition by triazine dyes 247–251
modification by pyridoxal 5′-phosphate 365–371
potato isoenzymes 341–348
testicular (C_4) 365–371
Lactate dehydrogenases
potato and vertebrate 341–348
Laevulinate
regulation of biosynthesis of *Neurospora* δ-aminolaevulinate dehydratase 29–36
Laminarinase, *see* Exo-β-1,3-glucanase
Lectin
castor bean 395–400
potato fruit pericarp 273–275
Lens
glutathione *S*-transferases 11–20
Lethocerus, *see* Waterbug
Ligands
conformation of human plasma vitamin D binding component 401–410
Light
activation of chloroplast sedoheptulose bisphosphatase 845–849
isomerization of bilirubin 657–659
Lipid
bound oligosaccharides in alfalfa 257–260
Lipid peroxidation
lack of involvement of superoxides in spermatozoa 289–297
metal-ion-catalysed in spermatozoa 289–297
Lipids
Butyrivibrio 555–560, 561–569
Lipoprotein
mitochondrial NADH dehydrogenase complex 429–436
Liposomes
catecholamine exchange diffusion 523–532
phosphatidylcholine, steroids and sterols 785–790
phospholipid and cholesterol organization 785–790
Lipotropin
γ-melanotropin and precursor 125–132
Liver
cadmium in metallothionein 475–485
glutamate dehydrogenase 605–611
glutathione *S*-transferases 1–10
immunochemical comparison of UDP-glucuronyltransferases 155–163
microsomal oestrone 3-sulphate 16α-hydroxylase 221–227
plasma-membrane oestrogen receptors 743–760
supernatant arylsulphatase and sulphotransferase 133–138
Lysine residues
ε-amino-group citraconylation in nucleoproteins 269–272
essential, in mouse C_4 lactate dehydrogenase 365–371
Lysophosphatidylcholine
chromaffin granules 523–532
liposomes and membrane permeability 523–532
Lysosomal enzymes
role in fertilization 827–834
Lysosomes
α-mannosidase inhibition by swainsonine 649–651

α_2-Macroglobulin
binding to cathepsin H 487–497
comparison with pregnancy-associated plasma protein A 799–809
Macromolecules
exclusion from collagenous meshworks 761–768
Magnesium ions
DNA–*Eco*RI-endonuclease binding 593–604
Magnetic properties
haemoproteins 411–420
Mammary-adenocarcinoma 13762 ascites cells
Ca^{2+}- or Mg^{2+}-stimulated ATPase 45–51
α-Mannosidase
inhibition by swainsonine 649–651
lysosomal 649–651
Mast cells
histamine release by peptides 233–237
Medicago sativa, *see* Alfalfa
γ-Melanotropin
effect on adrenal gland 125–132

γ-Melanotropin—*contd.*
precursor of corticotropin and lipotropin 125–132
purification from human pituitary 125–132
Membranes
basement, *see* Basement membranes
Ca^{2+}- or Mg^{2+}-stimulated ATPase 45–51
chromaffin-granule phospholipids 523–532
erythrocyte 1,2-diacylglycerol kinase 669–672
glycosylation inhibition and glycoprotein degradation 21–28
heart mitochondrial pyruvate dehydrogenase complex 147–154
intestinal-microvillar neutral endopeptidase 645–648
mitochondrial, *see* Mitochondrial membranes
phospholipid and cholesterol organization 785–790
plasma, *see* Plasma membranes
Metalloproteins
zinc, cadmium and copper metallothioneins 475–485
Metallothioneins
cadmium, zinc and copper 475–485
oxidation during isolation 475–485
Methaemalbumin
kinetics of formation 95–102
5-Methylcytosine
nuclear DNA of *Physarum* 859–862
4-Methylumbelliferyl β-D-galactopyranoside
binding to castor-bean agglutinin 395–400
fluorescence polarization 395–400
Microsomal fraction
assay for oestrone 3-sulphate 16α-hydroxylase 221–227
UDP-glucuronyltransferase 155–163
Microtubules
neurofilament proteins 543–546
10-nm-filament fraction 543–546
Microvilli
intestinal membrane neutral endopeptidase 645–648
Mitochondria
heart pyruvate dehydrogenase complex 147–154
NADH dehydrogenase subunits 429–436
superoxide production by NADH dehydrogenase 421–427
Mitochondrial membranes
NADH dehydrogenase-supported superoxide production 421–427
Molybdenum
coupling to ^{33}S in xanthine oxidase 265–267
e.x.a.f.s. of xanthine oxidase 499–508
Mo(V)–^{17}O coupling in phosphate inhibitor complex of sulphite oxidase 285–288
Very Rapid Mo(V) e.p.r. signal 265–267
Molybdenum–iron protein
Klebsiella pneumoniae nitrogenase 449–455
Monoclonal antibody
myeloma–spleen-cell fusion 665–668, 777–783
phenylalanine hydroxylase 665–668, 777–783
cis,cis-Muconate cyclase
purification from *Trichosporon cutaneum* 37–43
Muscle
cardiac, *see* Cardiac muscle
flight, *see* Flight muscle
skeletal, *see* Skeletal muscle
Muscular dystrophy
Duchenne, *see* Duchenne muscular dystrophy
Myelin
2′:3′-cyclic nucleotide 3′-phosphodiesterase 71–82
Myeloma
monoclonal antibody from spleen-cell fusion 665–668, 777–783
Myocardium
myosin light-chain subunits 571–580
Myoglobin
amino acid substitutions 673–680, 681–697
antigenic sites 673–680, 681–697
magnetic-c.d. spectroscopy 411–420
species-independent antibody response 681–697
Myosin
adult and neonatal rat heart 627–635
age of cultured heart cells 627–635
atrial and ventricular light chains 571–580
Ca- and K^+(EDTA)-ATPases 627–635
foetal heart light chain 571–580
light and heavy chains 627–635

NADH dehydrogenase
heart mitochondria 429–436
lipoprotein complex (Complex I) 429–436
purification from *Bacillus stearothermophilus* 457–465
subunits and 5-iodonaphth-1-yl azide 429–436
superoxide-anion production 421–427
NADH–(dichlorophenol-indophenol) oxidoreductase
purification from *Bacillus stearothermophilus* 457–465
NADH–ubiquinone oxidoreductase, *see* NADH dehydrogenase
Neuroblastoma N18 cells
glycosylation and glycoprotein degradation 21–28
Neurocytoskeleton
tubulin and neurofilaments 543–546
Neurofilaments
tubulin and other proteins 543–546
Neurospora crassa
purification and properties of δ-aminolaevulinate dehydratase 29–36

regulation of biosynthesis of δ-aminolaevulinate dehydratase 29–36
Nicotinamide–adenine dinucleotide (phosphate)
coenzymes of glutamate dehydrogenase 299–304
Nicotinamide–adenine dinucleotide phosphate
interactions with aldehyde reductase 619–626
Nitrogenase
Fe–S clusters 449–455
Klebsiella pneumoniae Mo–Fe protein 449–455
p-Nitrophenyl phosphatase
possible identity with erythrocyte phosphoglycollate phosphatase 117–124
Nucleoprotein
separation of proteins by citraconylation 269–272
Nucleoside triphosphates
RNA polymerase from parsley 165–171
Nucleotides
coenzymes of glutamate dehydrogenase 299–304
IMP dehydrogenase 533–541
triazine-dye inhibition of enzymes binding 247–251
Nucleus
DNA methylation in *Physarum* 859–862
trout testis high-mobility-group proteins 661–664

Oat (*Avena sativa*) leaves
protochlorophyllide reductase peptides 277–280
Oestradiol-17β
binding by liver plasma membranes 743–760
Oestrogen receptors
hepatocyte plasma membranes 743–760
Oestrogens
binding by liver plasma membranes 743–760
liver microsomal 16α-hydroxylation 221–227
Oestrone 3-sulphate 16α-hydroxylase
assay in liver microsomal fraction 221–227
pigmented and non-pigmented guinea pigs 221–227
Oligosaccharide
dolichyl diphosphate, *see* Dolichyl diphosphate oligosaccharide
Oligosaccharides
lung fibroblast heparan sulphate 103–110
Ovum
β-*N*-acetylhexosaminidase and fertilization 827–834
2-Oxo acid dehydrogenase multienzyme complexes
new purification method from ox heart 147–154
2-Oxoglutarate dehydrogenase
multienzyme-complex purification from heart 147–154
Oxygen toxicity
spermatozoa 289–297

Palmitate
binding to normal and variant human serum albumin 281–283
Butyrivibrio lipids 555–560, 561–569
stereospecific distribution in adipocyte triacylglycerols 637–643
Palmitate elongase
fatty acid synthesis on germinating pea 791–797
phosphatidylcholine and arsenite 791–797
Papain
active-centre thiol groups 707–718
Parsley (*Petroselinum crispum*)
chromatin-bound DNA-dependent RNA polymerase I 165–171
Pea (*Pisum sativum*)
fatty acid synthesis in germination 791–797
seed protein convicilin 509–516
Penicillinase, *see* β-Lactamase
Pepsin
biological activity of immunoglobulin M 183–191
Pepstatin
dinitrophenyl-, *see* Dinitrophenyl-pepstatin
N-Pepstatinyl-*N'*-dinitrophenyl-1,6-diaminohexane
binding of cathepsin D and anti-dinitrophenyl antibody 835–843
Peptidase
endo-, *see* Endopeptidase
Peptide
N-terminal of type III procollagen 699–706
Peptides
corticotropin-derived and histamine release 233–237
histamine release from mast cells 233–237
lysine- and arginine-containing and histamine release 233–237
NADPH–protochlorophyllide oxidoreductase 277–280
protein antigenic structure 261–264
reverse-phase high-performance liquid chromatography 253–256
Pericarp
potato fruit lectin 273–275
Peroxidation
ethanol by catalase 613–618
Petroselinum crispum, *see* Parsley
Phage, *see* Bacteriophage
Phenylalanine hydroxylase
monoclonal antibody 665–668, 777–783
N-Phenylmaleimide
peptides of protochlorophyllide reductase 277–280
Phosphatase
p-nitrophenyl, *see p*-Nitrophenyl phosphatase
Phosphate
complexing and inhibition of sulphite oxidase 285–288

Phosphatidate
erythrocyte-membrane 1,2-diacylglycerol kinase 609–672
Phosphatidylcholine
fatty acid synthesis in germinating pea 791–797
6-Phosphogluconate dehydrogenase
affinity-chromatographic purification from *Bacillus* 53–62
red blood cells 63–70
Phosphoglycollate phosphatase
possible identity with *p*-nitrophenyl phosphatase 117–124
purification from human erythrocytes 117–124
thiol-group-specific inhibitors 117–124
Phospholipase C
endogenous substrate for 1,2-diacylglycerol kinase 669–672
Phospholipid bilayer
mitochondrial NADH dehydrogenase subunits 429–436
Phospholipids
bilayers with steroids in liposomes and membranes 785–790
Butyrivibrio 555–560, 561–569
hydrolysis *post mortem* in adrenals 523–532
Phosphorylase kinase
skeletal-muscle troponin T 851–854
troponin-I phosphorylation 547–554
Phylogenetic 'trees'
protein evolution, amino acid sequences and compositions 349–354
Physarum polycephalum
methylation of nuclear DNA 859–862
Pisum sativum, *see* Pea
Pituitary gland
purification of γ-melanotropin 125–132
Plasma
complement control protein C3b inactivator 173–182
fibronectin 719–727
human pregnancy-associated protein A 799–809
sex differences in protein patterns 869–872
vitamin D binding protein 401–410
Plasma membranes
oestrogen receptors 743–760
Plasmin
proteolysis of fibronectin 719–727
Plasmin inhibitor, *see* α_2-Antiplasmin
Plasminogen
affinity-chromatographic purification of α_2-antiplasmin 229–232
Platelet factor 4
complex-formation with heparin 769–776
fluorescence polarization 769–776
Polysaccharides
interaction with platelet factor 4 769–776
Polysulphonated aromatic chromophores
binding by nucleotide-dependent enzymes 247–251
Potato (*Solanum tuberosum*)
lactate dehydrogenase 341–348
Potato fruit
lectin from pericarp 273–275
Pregnancy-associated plasma protein A (PAPP-A)
comparison with α_2-macroglobulin 799–809
purification by affinity chromatography 799–809
Proalbumin Christchurch
ligand-binding properties 281–283
Procion dyes
affinity labels for nucleotide-dependent enzymes 247–251
Procion Red HE-3B
dye–Sepharose affinity chromatography 53–62
Procollagen
biosynthesis and protein disulphide-isomerase 873–876
Procollagen type III *N*-terminal endopeptidase
tendon fibroblast culture 699–706
Proline
insect Z-disc proteins 333–339
n-Propyl 2-pyridyl disulphide
papain and ficin active centres 707–718
Protein
molybdenum–iron, *see* Molybdenum–iron protein
pregnancy-associated plasma, *see* Pregnancy-associated plasma protein A
storage, *see* Storage protein
Protein disulphide-isomerase
chick embryo 873–876
correlation with procollagen biosynthesis 873–876
covalent-chromatographic purification, and properties 373–388, 389–393
resolution from glutathione–insulin transhydrogenase 373–388, 389–393
Protein evolution
amino acid sequences and compositions 349–354
phylogenetic 'trees' 349–354
Protein kinase
cyclic AMP-dependent, *see* Cyclic AMP-dependent protein kinase
Protein synthesis
glycosylation inhibitors and membrane glycoproteins 21–28
Proteinase
complement control protein C3b inactivator 173–182
see also Endopeptidase

Proteinase inhibitor
α_2-antiplasmin purification 229–232
Proteinases
active-centre thiol groups 707–718
localization at tissue-injury sites 835–843
Proteins
antigenic sites 673–680, 681–697
blood, *see* Blood proteins
citraconylation of lysine ε-amino group 269–272
determination and synthesis of antigenic sites 261–264
high-mobility-group, *see* High-mobility-group proteins
metallo-, *see* Metalloproteins
neighbouring amino acids to antigenic sites 673–680, 681–697
proline-rich, in insect Z-discs 333–339
separation from nucleoproteins with citraconic anhydride 269–272
synthesis of overlapping peptides 261–264
Proteoglycan
antigenic determinants 437–447
chick-embryo cartilage 193–207
chondroitin sulphate and keratan sulphate 193–207
core protein 193–207
Gladiolus style arabinogalactan-protein 437–447
Proteoglycans
acid lability of glycosidic bonds of L-iduronic acid residues 355–363
fibroblast heparan sulphate oligosaccharides 103–110
Proteolysis
commercial glutamate dehydrogenase preparations 605–611
Protochlorophyllide oxidoreductase
NADPH-dependent 277–280
peptides 277–280
Protocollagen hydroxylase
correlation with protein disulphide-isomerase 873–876
Protoporphyrin
regulation of biosynthesis of *Neurospora* δ-aminolaevulinate dehydratase 29–36
Pseudomonas aeruginosa
chloroacetone inhibition of aliphatic amidase 811–826
Pseudomonic acid A
binding to isoleucyl-tRNA synthetase 209–219
inhibition of *E. coli* isoleucyl-tRNA synthetase 209–219
selective toxicity in mammals and bacteria 209–219
Pyridoxal 5′-phosphate
modification of mouse testicular lactate dehydrogenase (C_4) 365–371
Pyruvate
reduction by potato lactate dehydrogenase 341–348
Pyruvate dehydrogenase
multienzyme-complex purification from heart 147–154

Quinoline
DNA binding of echinomycin analogues 727–742
Quinoxaline antibiotics
quinoline substitution and DNA binding 727–742

Rats
inter-strain differences in liver UDP-glucuronyltransferase 155–163
Receptors
oestrogen, *see* Oestrogen receptors
Red blood cells
cytoplasmic enzymes 63–70
fractionation into age classes 63–70
Restriction endonuclease
*Eco*RI, *see Eco*RI restriction endonuclease
Restriction endonucleases
Physarum nuclear DNA 859–862
Reticulocytes
cytoplasmic enzymes 63–70
Ribonucleic acid polymerase I
chromatin-bound, DNA-dependent 165–171
purification from parsley 165–171
Ricinus communis, *see* Castor bean
Rumen
Butyrivibrio lipids 555–560, 561–569

Saccharomyces carlsbergensis
proteins and nucleoproteins 269–272
Salmonella
agglutination by pepsin-treated immunoglobulin M 183–191
Sedoheptulose bisphosphatase
light activation in wheat chloroplasts 845–849
Seeds
pea protein convicilin 509–516
Semen
β-*N*-acetylhexosaminidase 827–834
superoxide dismutase and lipid peroxidation 289–297
Serine residue
phosphorylation in troponin T 851–854
Serum
human pregnancy-associated protein A 799–809
sex differences in protein patterns 869–872

Serum albumin
binding properties of human variant 281–283
bovine residues 400–403, 867–868
interaction with monomeric haemin 95–102
Sex
blood protein patterns 869–872
Skeletal muscle
troponin-T phosphorylation 851–854
Skin
collagenous-fibre meshworks 761–768
Slime mould, *see Physarum polycephalum*
Solanum tuberosum, *see* Potato
Spectroscopy
X-ray absorption, *see* X-ray absorption spectroscopy
Spermatozoa
superoxide dismutase 289–297
Spinal cord
10-nm neurofilaments 543–546
Spleen cells
monoclonal antibody from myeloma-cell fusion 665–668, 777–783
Steroids
interaction with phospholipids in liposomes and membranes 785–790
Sterols
interaction with phospholipids in liposomes and membranes 785–790
Storage protein
pea seed convicilin 509–516
Stroma
light-activation of sedoheptulose bisphosphatase 845–849
Submitochondrial particles
superoxide production by NADH dehydrogenase 421–427
Sugars
lectin binding 395–400
Sulphatase
alkyl, *see* Alkylsulphohydrolase
O-Sulphation
3,4-dihydroxybenzoic acid 133–138
Sulphite oxidase
Mo(V) e.p.r. spectra 285–288
phosphate inhibitor complex 285–288
Sulphotransferase
3,4-dihydroxybenzoic acid 133–138
rat liver high-speed supernatant 133–138
Sulphur
molybdenum-linked in xanthine oxidase 265–267
xanthine oxidase 499–508
Superoxide anion
bovine heart mitochondrial NADH dehydrogenase 421–427
Superoxide dismutase
distribution and properties in spermatozoa 289–297
lack of involvement in lipid peroxidation in spermatozoa 289–297
Superoxides
lack of involvement in lipid peroxidation in spermatozoa 289–297
Surfactants
biodegradation by alkylsulphohydrolases 467–473
Swainsona canescens
swainsonine inhibition of α-mannosidase 649–651
Swainsonine
indolizidine alkaloid from plant *Swainsona canescens* 649–651
inhibition of lysosomal α-mannosidase 649–651

Teichuronic acid
Bacillus licheniformis A.T.C.C. 9945 walls 305–318
^{13}C n.m.r. studies 305–318
tetrasaccharide repeating unit 305–318
Tendon
fibroblast procollagen peptidase 699–706
Terminal deoxyribonucleotidyltranferase
isolation from wheat germ 139–145
Testis
lactate dehydrogenase (C_4) 365–371
nuclear high-mobility-group proteins in trout 661–664
Thermoascus aurantiacus
cellulases 83–94
Thermodynamics
deacylation of acyl-α-chymotrypsins 653–655
Thermophilic fungus (*Thermoascus aurantiacus*)
cellulases 83–94
Thiol groups
active centres of papain and ficin 707–718
IMP dehydrogenase active site 533–541
Thiol–disulphide interchange
enzymes catalysing 373–388, 389–393
Thiol–disulphide oxidoreductases
resolution 373–388, 389–393
Thiol–protein disulphide oxidoreductases
resolution of protein disulphide-isomerase and glutathione–insulin transhydrogenase 389–393
Thioneins, *see* Metallothioneins
Thionicotinamide nucleotides
glutamate dehydrogenase 299–304
Thiopropyl–Sepharose 6B
covalent-chromatographic separation of thiol–disulphide oxidoreductases 373–388, 389–393
Triacylglycerols
biosynthesis in rat adipocytes 637–643
stereospecific distribution of palmitate 637–643

Triazine dyes
affinity chromatography of 6-phosphogluconate dehydrogenase 53–62
affinity labels for nucleotide-dependent enzymes 247–251
Trichoderma reesei
exo-β-1,3-glucanase 863–866
growth on barley β-glucan 863–866
Trichosporon cutaneum (yeast)
degradation of aromatic compounds 37–43
purification of *cis,cis*-muconate cyclase 37–43
Triticum aestivum, *see* Wheat
Troponin I
adrenaline effect on phosphorylation 547–554
phosphorylase *b* kinase 547–554
phosphorylated serine and threonine residues 547–554
Troponin T
phosphorylase kinase 851–854
skeletal muscle 851–854
Trout
high-mobility-group proteins in testis nuclei 661–664
Tubulin
neurofilaments 543–546
Tumour
bronchial-carcinoma calcitonin 239–246
mammary, *see* Mammary-adenocarcinoma 13762 ascites cells
Tunicamycin
glycosylation inhibition and membrane glycoprotein degradation 21–28

UDP-glucuronyltransferase
antiserum against Wistar-rat liver enzyme 155–163
immunochemical comparison in Gunn- and Wistar-rat livers 155–163

Vitamin D binding protein
human plasma 401–410
transport of vitamin D and metabolites 401–410

Water
exclusion volume from collagenous meshworks 761–768
Waterbug (*Lethocerus*)
flight-muscle Z-disc proteins 333–339
Wheat (*Triticum aestivum*)
chloroplast sedoheptulose bisphosphatase 845–849
Wheat germ
terminal deoxyribonucleotidyltransferase 139–145

Xanthine oxidase
cyanide-labile sulphur atom 265–267
e.x.a.f.s. of molybdenum 499–508
molybdenum-linked sulphur atom detected by e.p.r. 265–267
X-ray absorption spectroscopy
molybdenum in xanthine oxidase 499–508

Yeast (*Saccharomyces carlsbergensis*)
proteins and nucleoproteins 269–272
Yeast (*Trichosporon cutaneum*)
degradation of aromatic compounds 37–43
purification of *cis,cis*-muconate cyclase 37–43

Z-discs
protein composition 333–339
Zinc
metallothioneins 475–485
Zona pellucida
β-*N*-acetylhexosaminidase action 827–834